LTI-Limno-Tech, Inc.
Environmental Engineering

FACSIMILE TRANSMISSION COVER SHEET

TO: Bruce Merchant

COMPANY: The City of Kalamazoo

DEPARTMENT:

FAX TELEPHONE NUMBER: 616-385-3015

FROM: Gregory W. Peterson

PROJECT:

DATE: April 29, 1991

URGENT: ✓ Yes __ No

NUMBER OF PAGES: 2
(Including cover sheet)

COMMENTS: Bruce: Enclosed are the results of the metals and PCB analyses for the Allied decant lagoon effluent after treatment. The results demonstrate that the treated water complies with the City's limitations for these parameters. The results for the other parameters (BOD, TSS, VSS, dioxins, etc.) are not yet available but will be forwarded to you as soon as they are. Greg

IF YOU HAVE ANY PROBLEMS WITH THIS TRANSMISSION PLEASE CALL (313) 973-8300

2395 Huron Parkway - Ann Arbor, Michigan 48104 - Telephone: 313/973-8300 - (FAX): 313/973-1069
Other LTI Offices: South Bend, IN, and Washington, D.C.

KAR Laboratories, Inc.

ANALYTICAL RESULTS

To: United Environmental Tech., Inc.

Project No: 910835
Report Date: 4/29/91

Project Desc.: Emergency analysis of aqueous sample from Allied Paper Proj.89-002-02.

Sample No.:910835-01 Sample type: aqueous Received on: 4/26/91
ID: "Clarifier discharge, 4/26/91, 2:40"

PCB, total	<0.1 ug/L
Cyanide, total	<0.02 mg/L
Cadmium, total	<0.005 mg/L
Chromium, total	<0.01 mg/L
Copper, total	0.02 mg/L
Lead, total	<0.05 mg/L
Mercury, total	<0.0005 mg/L
Nickel, total	0.04 mg/L
Zinc, total	0.03 mg/L

Unless otherwise noted, test results represent the sample(s) as they were received.

LTI–Limno-Tech, Inc.
Environmental Engineering

January 3, 1991

Bruce E. Merchant
Industrial Services Supervisor
The City of Kalamazoo
Department of Public Utilities
1415 N. Harrison
Kalamazoo, MI 49007-2565

Dear Bruce:

Pursuant to our discussion by phone today, enclosed please find a summary of the sampling results for the storm water runoff at the Performance Papers/ Allied Paper site collected on December 7, 1990. The sampling was conducted according to the agreements reached with you at our meeting of December 4, 1990. The purpose of the sampling was to characterize the water quality of 1) the mill roof runoff and 2) the decant lagoon water to identify appropriate disposal options. The results indicate that all samples meet the local discharge limitations for all parameters tested.

Subject to your review of the results, and on behalf of Allied Paper, Inc./ HM Holdings, we propose to proceed with the following courses of action:

1) Mill Roof Runoff - We propose on an emergency basis to discharge the storm water from the mill area (north of Alcott Street) to the city sanitary sewer. The mill roof runoff is currently pumped from the mill sump through the "gray tank" to the Bryant Clarifier and then out to the decant lagoons. We propose to discharge this water from the clarifier directly to the sewer using the existing connection and thereby bypass the decant lagoons. A water sample was collected from the "gray tank" and the results are attached. We propose to discharge this water in batches, using the gray tank as the storage basin. Samples would be obtained for each batch, if necessary. Discharge volumes could be calculated by recording the depth differences in the gray tank before and after discharge of each batch.

We propose to discharge this water to the sanitary

sewer only on a short term emergency basis until a longer term solution is approved. The two other solutions that are being pursued include discharge through outfall 002 under Performance Papers' existing NPDES permit, or discharge to the storm sewer. Both of these latter options require coordination with the State and therefore will require additional time for approval. We will keep you apprised of the progress regarding the pursuit of these options.

2) Decant Lagoon Water - As part of the December 7, 1990 sampling event, we conducted a pilot pre-treatment study of the decant lagoon water using a floating intake, centifugal pump and a basket filter. The results of the study showed that all samples (basket filter influent and effluent) met the city's limitations for all parameters tested. Based on these results, it does not appear necessary to pre-treat the water prior to discharge to the city sanitary system. However, in order to minimize the possibility of inadvertently discharging resuspended decant lagoon sediment to the city sewer, we propose the following:

a) Intermittently and as necessary, pump the water from the decant lagoons using a portable 3" centrifugal pump and floating intake at a rate of approximately 100 gpm until the lagoons are drawn down.

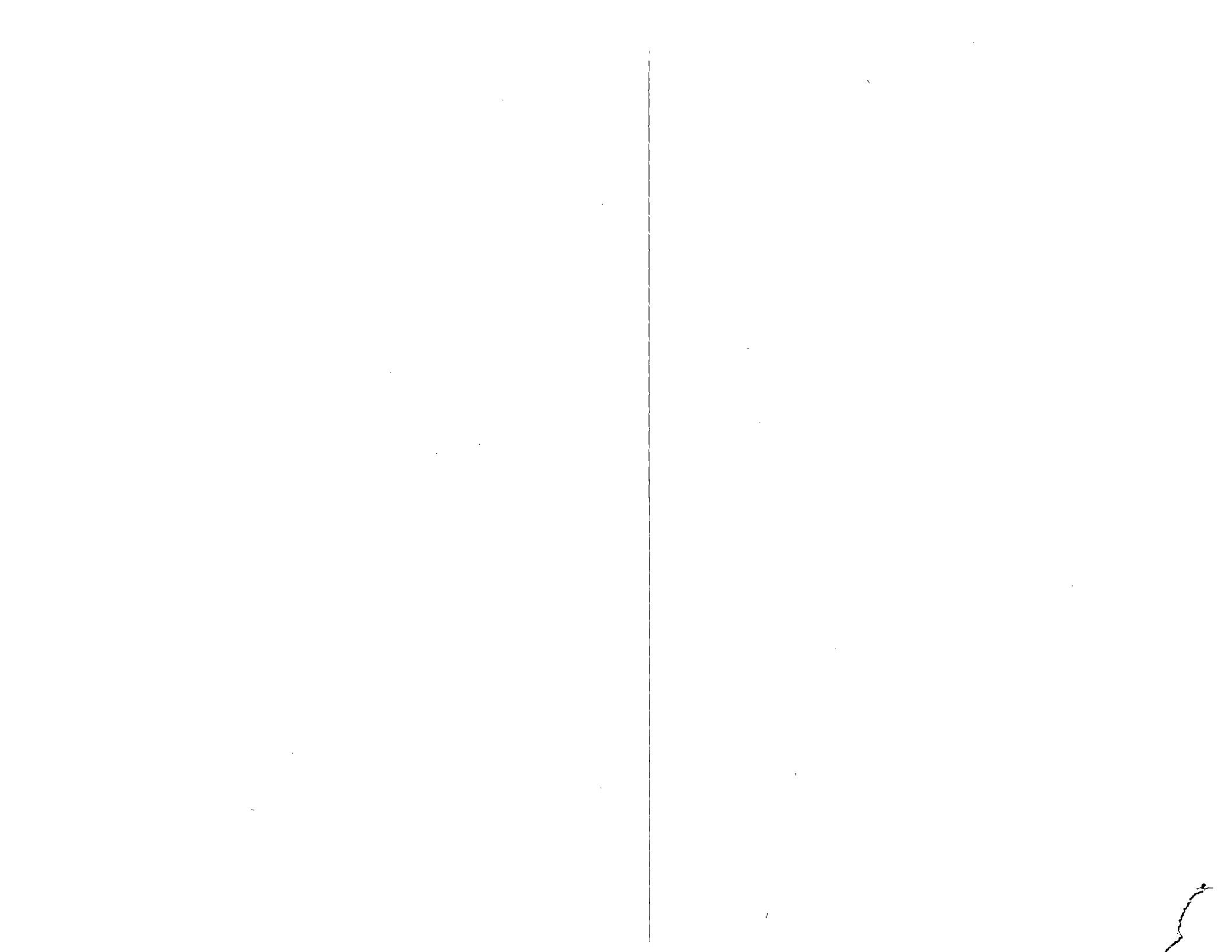
b) Filter the water using a basket filter with a 25 mesh filter. (The smallest filter (10 mesh) clogged quickly and did not yield an adequate flow rate).

c) Periodically sample the filter effluent according to the City's requirements.

d) Meter the discharge using an in-line meter and discharge to the sanitary sewer connection at the clarifier.

We would like to begin discharging the water from the "gray tank" as soon as possible, and begin discharging the water from the lagoon sometime next week, and therefore await your approval.

The local contractor that will be responsible for the operation of the pre-filter and all discharges to the City will be Fretco, Inc. Fretco will issue monthly accountings of the volume of water discharged to the city sanitary sewer. The contact at Fretco, Inc. will be Mr. Thomas Flanagan and he can be reached at 342-1677. LTI will oversee the operation, so if you have any questions or concerns, you can contact either Mr. Flanagan, or myself at (313) 973-8300. In the event that you are not able to reach either one of us, you can contact Mr. William B French of



UETI at 381-4344. All invoices for discharged waters should be sent to the attorney for HM Holding/Allied Paper, Inc.:

Mr. Jon F. DeWitt
Varnum, Riddering, Schmidt, and Howlett
Suite 800
171 Monroe Avenue, N.W.
Grand Rapids, MI 49503
(616) 459-4186

Bruce, on behalf of Allied, we appreciate very much the consideration and cooperation you have shown in helping us solve this problem. If you have any questions, or should you need additional information, please don't hesitate to call me.

Sincerely,
LTI, Limno-Tech, Inc.

Gregory W. Peterson

Gregory W. Peterson
Project Manager

HM HOLDINGS/ALLIED PAPER, INC.

Analysis of Storm Runoff from Allied Paper

Location:	Grey Tank	Lagoon 1 Pretreatment - 10 mesh	Lagoon 1 Treated - 10 Mesh	Lagoon 1 Treated - 10 Mesh	Lagoon 1 Treated - 25 Mesh
Date:	12/7/90	12/7/90	12/7/90	12/7/90	12/7/90
Time:	15:00	15:45	16:00	16:20	17:00
Parameter	Concentration (mg/l)	Concentration (mg/l)	Concentration (mg/l)	Concentration (mg/l)	Concentration (mg/l)
BOD	<5	7	7	9	7
pH	7.5 S.U.	7.3 S.U.	7.3 S.U.	7.2 S.U.	7.4 S.U.
Suspended Solids, total	12	4	6	<1	7
Suspended Solids, volatile	7	4	6	<1	7
Cyanide, total	<0.02	<0.02	<0.02		<0.02
Cadmium, total	<0.005	<0.005	<0.005		<0.005
Chromium, total	<0.01	<0.01	<0.01		<0.01
Copper, total	0.02	<0.02	<0.02		<0.02
Lead, total	<0.002	0.002	0.002		0.003
Mercury, total	<0.0005	<0.0005	<0.0005		<0.0005
Nickel, total	<0.05	<0.05	<0.05		<0.05
Zinc, total	0.04	<0.01	<0.01		<0.01
PCB		<0.1	<0.1		<0.1
MDNR Scan 8	(ug/l)	(ug/l)	(ug/l)		(ug/l)
4-Chloro-3-methylphenol	<10	<10	<10		<10
2-Chlorophenol	<10	<10	<10		<10
2,4-Dichlorophenol	<10	<10	<10		<10
2,4-Dimethylphenol	<10	<10	<10		<10
2,4-Dinitrophenol	<50	<50	<50		<50
2-Methyl-4,6-dinitrophenol	<25	<25	<25		<25
2-Nitrophenol	<10	<10	<10		<10
4-Nitrophenol	<10	<10	<10		<10
Pentachlorophenol	<10	<10	<10		<10
Phenol	<10	<10	<10		<10
2,4,5-Trichlorophenol	<10	<10	<10		<10
2,4,6-Trichlorophenol	<10	<10	<10		<10